

## Abstract

A method for determining a plurality of location areas in a wireless communication system is disclosed. The method comprises the steps of determining a plurality of mobility data corresponding to a plurality of first partition units respectively and an overall cost of a plurality of first registration areas, wherein each of the first registration areas includes at least one of the first partition units; generating a plurality of second registration areas through a registration area determining procedure, wherein the second registration areas are constructed based on the mobility data of the first partition units; determining an overall cost of the second registration areas; comparing the overall cost of the first registration areas and the second registration areas; and determining a plurality of third registration areas and second partition units based on the result of comparison, wherein at least one of the second partition units is generated by combining at least two of the first partition units based on the mobility data of the corresponding first partition units when the overall cost of the first registration areas is lower than or equal to the overall cost of the second registration areas, at least one of the second partition units is generated by partitioning one of the first partition units based on the mobility data of the corresponding first partition units when the overall cost of the first registration areas is higher than the overall cost of the second registration areas.